25 YEARS

OptiSense

Light, battery-powered and eye-safe

Contactless coating thickness testing with our mobile systems

The measured values can be quickly transferred to a PC via USB interface and are immediately available for process monitoring, for example with Excel.

Miniaturization is our main focus

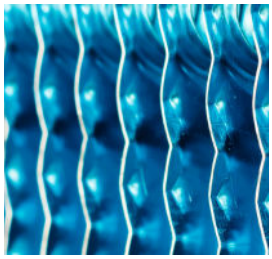
Our PaintChecker mobile models solve all measuring tasks

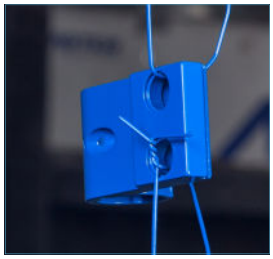
Maximum miniaturization by means of a 2-component system

Contactless, photo-thermal coating thickness measurement has proven to be a key technology for automated coating systems. By using this approach, our PaintChecker mobile instruments can precisely measure solid, powdery and even wet coatings on metallic and non-metallic surfaces – without even touching the surface.

The strengths of our mobile devices are based on the clever idea of developing sensors and controllers as two separate components. It is therefore possible to miniaturize the freely moveable, high-performance measuring head to such an extend that the entire laser sensor weighs just 50 grams.

The sensor head of all mobile OptiSense models is detached from the control unit and connected with a flexible cable. While the controller can be carried comfortably in a holster, the lightweight, ergonomically designed sensor can be guided precisely and effortlessly to the component without damaging the sensitive coating. You can measure even extremely complex geometries without touching the surface – even if the components are small or angled and the surface to be tested is curved or difficult to reach.






An optimum measurement solution for coating thickness not only features contactless, automated operation on a wide variety of substrates, but is also intuitive to use and delivers precise measurement results.

Sophisticated technology

Efficient measurements save money and protect the environment

Always have the entire process in sight

You already know that our Paintchecker mobile models measure various material combinations with outstanding precision. But did you know that our contactless systems especially boast with uncured powder coatings or paints? With the PaintChecker units it is possible to check whether the coating is within the defined tolerance range at the earliest stage of production – without touching the still soft coating.

This pays off quickly: with our devices measuring units, you avoid costly, time-consuming rework and save coating material, since "better too much than too little" is finally a thing of the past thanks to the precise way of measuring coating. A portable PaintChecker system pays for itself within a very short time. With the mobile devices, you make a significant contribution to the environment – because achieving more with less is not only economically but also ecologically desirable.

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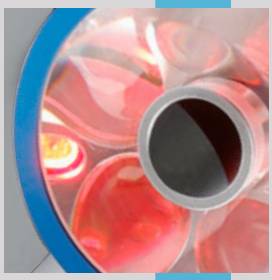
Contactless and light-weight



100% in-process testing as the process is

Checks edges, corners and bends in a breeze

The corners and edges of components are areas that are particularly prone to stress. Due to electrostatic effects more paint collects there and forms a much thicker coating than on a flat surface. Wet paints as well accumulate on the sheet edges resulting in excessive coating. Our PaintChecker mobile devices with laser sensors are specifically optimised for measurements on such extremely tight curvatures. Even the narrow edges of radiator fins and light-coloured, weakly absorbing coatings can be precisely examined with tiny, powerful measuring spot – of course in full compliance to industry standards and completely eye-safe thanks to our patented LARES technology.

Coating thickness measurements on rough surfaces can vary greatly depending on whether the measuring point is in a valley or pike of the coating. Our PaintChecker mobile devices with LED sensors automatically compensate for such uneven surfaces with their large measuring spots and deliver precise and reproducible measurement results for these kind of coatings. The sensor type with infrared excitation is further suitable for non-metallic surfaces, such as rubber seals with bonded coating.

Powder coatings are a big challenge for traditional thickness measurement instruments: the coating must be cured to be measured but is very difficult to rework after curing has taken place – an ideal optimisation task for our PaintChecker mobile GUN, which can check the rough, still soft powder coating by it's UV LED sensor and then extrapolate the final thickness of the coating after curing. Coating thickness errors can thus be detected during the coating process and corrected directly after powder application.

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The whole is greater than the sum of its parts

The PaintChecker mobile

The controller is the brain of our mobile system. In its robust aluminium housing, it calculates the mean value and standard deviation, monitors limits, and alerts the user as soon as the coating thickness margins are violated. The recorded measured values can be quickly transferred to a PC via USB interface and are immediately available for process monitoring and control or for analysis in Excel.

The comprehensive menu allows you to adjust all settings using the built-in membrane keyboard: you can choose between languages, various units of measurement, extensive statistical information, sound, energy-saving mode, and much more. Thanks to the latest semiconductor technology and a large battery, the controller can operate without mains supply throughout a whole working day.

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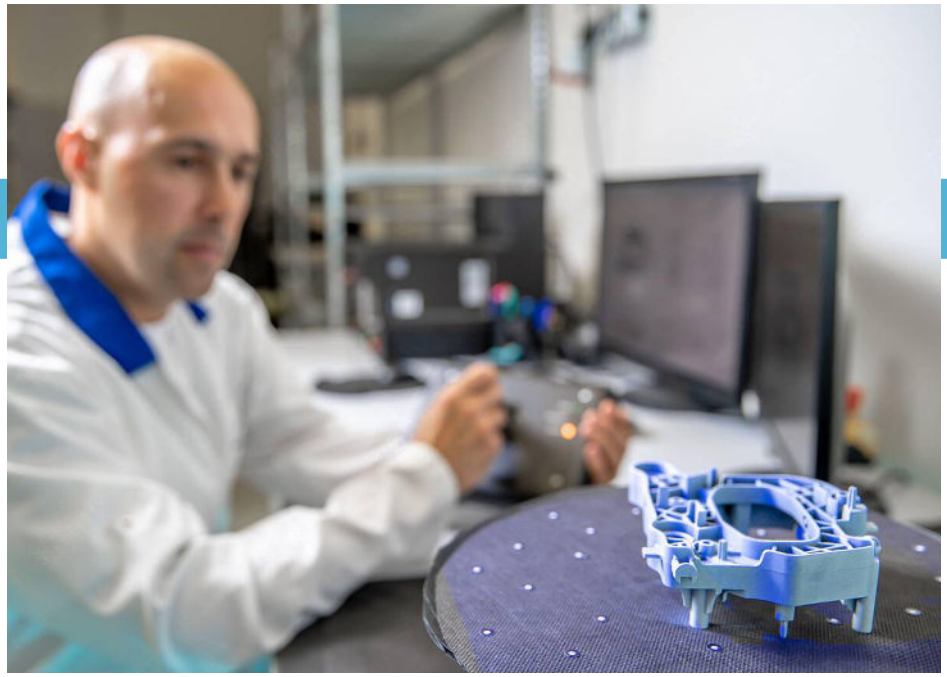
The ergonomically designed sensor is the centerpiece of the PaintChecker mobile. Depending on the task at hand, simply select the sensor type that best suits your measuring task, regarding distance, spot size and excitation wavelength.

The OptiSense mobile measuring system cleverly combines an extremely low sensor weight with outstanding mobility. The results are impressive: the sensors are able to take measurements quickly and precisely, even on the smallest of parts or on components with curved, angled or hard-to-reach surfaces.



Easy budget management and saving potential

The perfect service portfolio for your measurement needs

The handheld Paintchecker mobile devices are, just one component of our well-coordinated portfolio of products and services, which covers the entire field of industrial coating thickness measurement: uniform measuring methods, consistent processes and seamless data flow across all production levels, from the lab, to the production line, to quality control.

Our flexible, contactless measuring systems offer several types of sensor heads with different light sources for every aspect of coating thickness measurement – completely in line with your individual needs. We create a reasonable and efficiently coordinated measurement concept provided as a complete solution from a single source, which can be adapted and enhanced at any time.

The experience and knowledge you gain during service measurements also makes it easier for you to select a suitable measurement system when planning investments for your individual measurement task. If you decide on purchasing your own coating thickness measuring system, our service portfolio will support you over the entire life cycle of the systems: we provide calibration, maintenance and repair services at various service levels. This means predictable, low expenditures while assuring to keep high performance levels at all stages of the production process.

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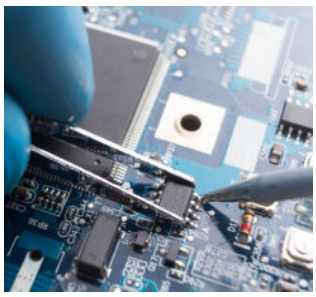
The strengths of our service team

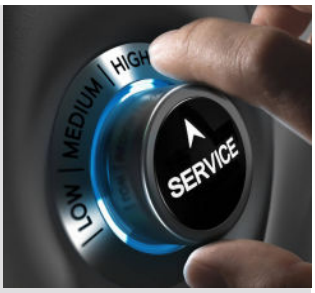
Professional all-round service throughout the entire life cycle

Thanks to many years of experience, you can benefit from an extensive expertise in coating thickness measurement, throughout the entire life cycle of your products. Already in early stages of product design we determine the ideal measuring concept in close cooperation with your development team and help you to select the most suitable measuring device. We then assist you in transferring the test procedures from the lab to series production and also can advise and support you when it comes to quality assurance.

We create customer-specific calibrations for new material combinations and, can take care of the regular validation of the test equipment, including calibration certificates. Maintenance and functional testing of the coating thickness measuring devices are another part of our range of services as well as measuring equipment capability analyses. Moreover, should you run into capacity bottlenecks, you can rely on our rental equipment and contract measurement services.

With OptiSense as your partner, you have permanent access to comprehensive and high-quality services that are invaluable for new developments, process optimisation, quality control and damage analysis.





Process optimisation and spare use of resources

Precise contract measurement as a resource-saving solution

Regardless of whether you are a beginner in measurement, whether you have a wide variety of measurement tasks to be solved, or whether you run a company that rarely has need of coating measurements you can take advantage of professional surface measurement for your own parts. Our experienced and well trained employees will be happy to assist you in measurements and analyses – in our laboratory and on site. In the meantime, you can free up your human resources for your core business.

Regardless of whether the current coating quality of your production line is to be determined, a new installation is to be run in, the product is to be changed or the coating process is to be statistically examined: you can rely on our experts.
Our high-precision surface measurements allow you to perfect your production quality – as a service exactly where and when you need it.

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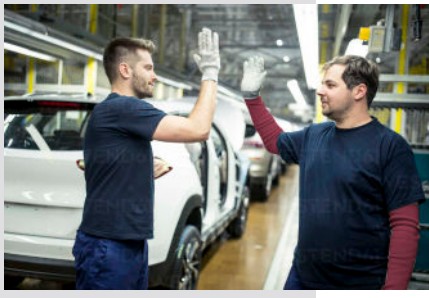

OptiSense.
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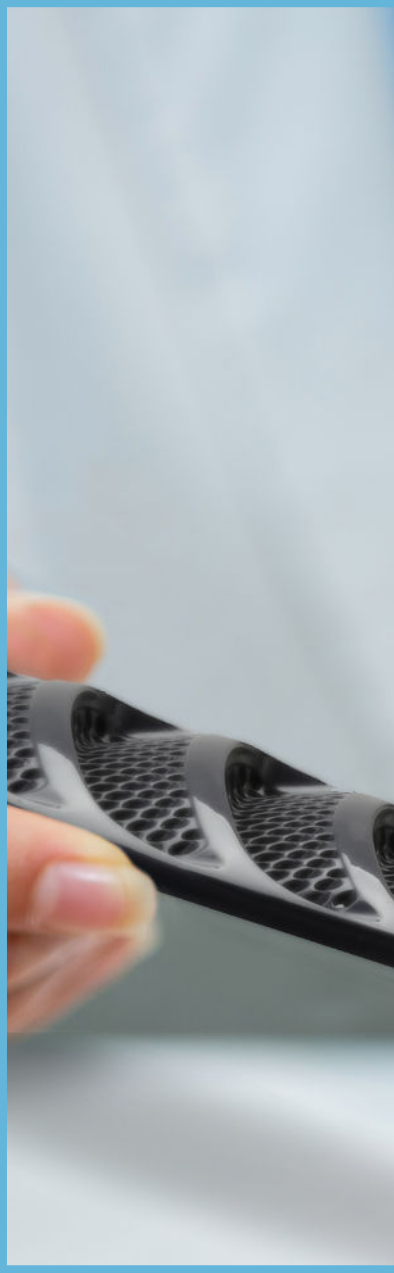

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